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ABSTRACT

Behavioral humanism is defined as the synthesis of behavioral techniques with humanistic goals. Contemporary humanism, especially humanistic psychology, offers directions for the kind of behavior that individuals should be able to engage in; contemporary behaviorism offers principles and procedures to help individuals increase their humanistic actions. The intensive experimental study of the individual (N-1) is discussed as an intimate research strategy appropriate to humanistic concerns. Freedom is viewed as the power to control the variables that influence one's behavior. Behavioral self-control by means of self-observation, individual programming, and environmental planning is offered as a means of developing humanistic behavior. An initial translation of humanistic concerns into action (response) is offered. The purpose of the research reported here is to create and empirically validate techniques to help individuals develop self-control skills. An extensive bibliography is included. (Author)

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BEHAVIORAL HUMANISM

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Introductory Statement

The Center is concerned with the shortcomings of teaching in American schools: the ineffectiveness of many American teachers in promoting achievement of higher cognitive objectives, in engaging their students in the tasks of school learning, and, especially, in serving the needs of students from low-income areas. Of equal concern is the inadequacy of American schools as environments fostering the teachers' own motivations, skills, and professionalism.

The Center employs the resources of the behavioral sciences--theoretical and methodological--in seeking and applying knowledge basic to the achievement of its objectives. Analysis of the Center's problem area has resulted in three programs: Teaching Effectiveness, Teaching Students from Low-Income Areas, and the Environment for Teaching. Drawing primarily upon psychology and sociology, and also upon economics, political science, and anthropology, the Center has formulated integrated programs of research, development, demonstration, and dissemination in these three areas. In the program on Teaching Effectiveness, the strategy is to develop a Model Teacher Training System integrating components that dependably enhance teaching skill. In the program on Teaching Students from Low-Income Areas, the strategy is to develop materials and procedures for engaging and motivating such students and their teachers. In the program on Environment for Teaching, the strategy is to develop patterns of school organization and teacher evaluation that will help teachers function more professionally, at higher levels of morale and commitment.

Work on this report was done under the Personal Competencies component of the program on Teaching Effectiveness. Related studies now under way are aimed at examining how teachers can be trained to act in more humanistic ways. The training procedures developed will become a part of the Model Teacher Training System.

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Abstract

Behavioral humanism is defined as the synthesis of behavioral techniques with humanistic goals. Contemporary humanism, especially humanistic psychology, offers directions for the kind of behavior that individuals should be able to engage in; contemporary behaviorism offers principles and procedures to help individuals increase their humanistic actions. The intensive experimental study of the individual (N = 1) is discussed as an intimate research strategy appropriate to humanistic concerns. Freedom is viewed as the power to control the variables that influence one's own behavior. Behavioral self-control by means of self-observation, individual programming, and environmental planning is offered as a means of developing humanistic behavior. An initial translation of humanistic concerns into action (response) is offered. The purpose of the research reported here is to create and empirically validate techniques to help individuals develop self-control skills.

BEHAVIORAL HUMANISM

Carl E. Thoresen

Educators and behavioral scientists can act to help individuals experience life more positively. There are many ways to take such actions. One way offers considerable promise: the synthesizing of social learning principles and techniques with the goals and concerns of humanistic psychology. This synthesis is termed behavioral humanism. We can benefit from the work of both behaviorists and humanists if we reduce the confusion, ambiguity, and misunderstanding about contemporary behaviorism and humanism, and if we develop and use new scientific methods tailored to the study of human phenomena. In this report an effort is made to reduce some of the misunderstanding.

On Humanism

A variety of humanisms have existed since the time of Hellenic civilization. Today there are classical, ethical, scientific, religious, Christian, and rational humanists. Many people are essentially humanists even though they do not label themselves as such. Those who identify with humanistic psychology can be seen as representing a blending of psychology as a discipline with ethical forms of humanism (Wilson, 1970).

Humanism was and is primarily a philosophical and literary movement. It emerged in the early Renaissance as a reaction against the revealed truth of the Church and the dominance of Aristotelian thinking (Abbagnano, 1967). The early humanists argued that man, through his own intellect, had the power (and the responsibility) to determine his own destiny. It was the Renaissance humanists who made the definitive break that opened the way for the rise of Western science. Interestingly, many contemporary humanists now oppose the scientific world view initiated by earlier humanists.

Kurtz (1969) suggests that two basic principles characterize humanism: a rejection of any supernatural world view as established fact, and a rejection of any metaphysical divinity as the source of human values. Some people may believe in supernatural powers, but since there is no known empirical means to prove or refute these views, the existence of such powers is a matter not of fact but of personal belief. For the humanist, man must be responsible for himself, especially in deciding what is good, desirable, and worthwhile. Man is the maker of values and man's actions represent, in effect, his values.

A somewhat different version of this paper will appear in Carl E. Thoresen (Ed.), Behavior Modification in Education, 72nd Yearbook of the National Society for the Study of Education. Chicago, 1973.

Not all humanists, however, accept two other basic principles offered by Kurtz (1969): that ethical principles and value judgments should be open to empirical, rational scrutiny, and that the methods of science can be applied in solving man's problems. The humanist is generally concerned with what people do in this life--with human actions in life's present circumstances. Many humanists further believe that the use of reason and scientific methods provides the best single means of solving human problems and improving the quality of human life. For example, Eysenck (1971, p. 25) states that "the use of reason in human affairs applied in the service of compassion" reflects the basic spirit of many humanists.

Definitions of what constitutes humanism are as diverse as the individuals offering the definitions. Interestingly, many contemporary "behaviorists," i.e., behavior therapists, behavioral counselors, and operant psychologists or social learning psychologists, consider themselves humanists (Day, 1971; Hosford & Zimmer, 1972; Kanfer & Phillips, 1970; Lazarus, 1971; MacCorquodale, 1971; Skinner, 1971; Staats, 1971; Thoresen & Mahoney, in press; Ullmann & Krasner, 1969). Several reasons explain why behavior-oriented professionals see themselves this way. First of all, they focus on what the individual person <u>does</u> in the present life and not on who the person <u>is</u> in terms of vague social labels or obscure descriptions. Second, they emphasize human problems as primarily learning situations in which the person is capable of changing. Third, they examine how environments can be altered to reduce and prevent human problems, and finally they use scientific procedures to improve techniques for helping individuals.

Differences or distinctions between contemporary behaviorists and humanists do exist. For example, many contemporary humanists have rejected methods of science as a means of problem solving, whereas behaviorists are strongly committed to rigorous empirical inquiry. As many differences, however, exist within heterogeneous groupings called behaviorist or humanist as exist between them. The issue is not behaviorism versus humanism--that is a pseudo-issue which has been promoted by caricatures of these positions. Instead, the issue is how best to utilize the concepts and methodologies of both behavioral and humanistic psychology. An examination of the literature of humanistic psychology should help us clarify the concerns of humanists.

Humanistic Psychology and Education

Many people have written about the concerns of humanistic psychology and education (e.g., Allport, 1963; Brown, 1970; Buhler, 1970; Edwards, 1969; Fairfield, 1971; Heath, 1964; Huxley, 1966; Jourard, 1968, 1971; Landsman, 1968; Maslow, 1969; Matson, 1964, 1971; Murphy, 1969; Platt, 1966; Rogers, 1969; Weinstein & Fantini, 1970). Humanistic psychology and education has been influenced by a host of Eastern and Western schools of philosophy, psychology, and religious thought. Abraham Maslow, Carl Rogers, Rollo May, and Viktor Frankl have in particular extended this influence. The tolerance for diversity and pluralism that characterizes

humanistic psychology brings about a confluence of theoretical orientations such as neo-psychoanalytic, phenomenological, Gestalt, existential, and Rogerian. As a result, the field at present lacks a coherent, integrated, theoretical rationale. This theoretical looseness, though cherished by some, has discouraged empirical research. Buhler (1971), in presenting the basic theoretical concepts of humanistic psychology, has distinguished it from the philosophy of humanism by its use of different concepts, methods, and goals. For Buhler, humanistic psychology must use scientific methods to discover ways of helping the person "experience his existence as real." The humanistic psychologist is seen as more action-oriented than the traditional literary humanist, engaged in philosophical disputes and anti-religious quarrels.

Jourard (1968) has emphasized transcendent behaviors, that is, he argues that the individual learns by committing himself fully in thinking, perceiving, and achieving; by going beyond the typical; by acting divergently; by taking risks; and by using fantasy. Transcendent behavior is made possible by an openness to experience, the ability to focus selectively, skill in using symbols and metaphors, and self-confidence. For Landsman (1968), the key unit of behavior is "positive experiencing." He suggests that effort should be directed toward the "experimental creation of positive experiences." According to Maslow (1966, 1969), the major task of humanistic psychology is to collaborate with the behavioral sciences in finding out how to create physical and social environments that will nurture self-actualization. In discussing humanistic education, Brown (1970) has stressed the need for a confluence of the cognitive and the affective aspects of learning. With this integration the curriculum could provide planned educational experiences for all kinds of human learning.

Maslow (1969, p. 732) offered what can be viewed as the basic theme of humanistic psychology and education: "The first and overarching Big Problem is to make the Good Person." The concept of creating the good person permeates the writings of humanistic psychology. The task of psychology is to develop methods that will help the individual person act in more positive, meaningful ways with himself and with others. An examination of the literature of humanistic psychologists and educators reveals the following concerns:

1. The person as the unit of focus, rather than the average performance of large groups and populations.

2. The search for unity in human experience; the recognition that the person must exist in harmony with himself and nature.

3. Awareness and awakening; attempts to increase the conscious range of the person's behavior, especially in his own internal behavior, such as thoughts, images, and physiological responses.

4. The need for compassionate persons, for individuals who can communicate personally and intimately with others in a variety of

ways and who can also help others experience life more positively.

5. Self-determination and responsibility; the ability to identify alternatives, clarify values, make decisions, and accept the responsibility for one's actions.

6. Diversity and pluralism; a reverence for the idiosyncratic and the unique in individuals.

7. The need for new research techniques and methodologies tailored to the intensive study of the individual person--techniques that avoid the detachment and impersonality of traditional physical science methods.

8. The need for educational experiences that engage the individual in a comprehensive sense, involving social, emotional, and sensual actions as well as academic or cognitive ones.

The focus of action-oriented humanists is on what the individual person does, internally and externally. The concerns listed above highlight the interdependence of human activity stressing the need for unity and harmony in experience. The self-actualizing person is aware of a variety of responses taking place both within himself and between himself and his environment. Further, such a person has the skills to "make things happen."

Contemporary Behaviorism

The term "behaviorist" represents a variety of theoretical positions and technical practices. There is diversity and disagreement among those who consider themselves to be behaviorists (Day, 1969; Rachlin, 1970). While all aspects of what constitutes behaviorism cannot be discussed here, it may be possible to eliminate some stereotypes.

Clearly, the behaviorism lamented by some of its critics (Koch, 1964; Koestler, 1967; Matson, 1964) is a dated and inaccurate representation. Behaviorism is not, for example, the simple (minded) application of reinforcement schedules to persons as if they were no different from rats or pigeons. Nor is all behaviorism a physicalistic, empty (headed) black-box psychology. Behaviorism or behavior therapy does not deny thoughts and complex emotions nor does it treat individuals as "simple mechanical entities (Portes, 1971)." At present there is no one type of behaviorism. Behaviorists today range from experimental psychologists who meticulously study specific animal responses in highly controlled laboratories to counselors and therapists who work with the immediate complex problems of individuals. Contemporary behaviorism is, in fact, a rich conglomeration of principles, assumptions, and techniques.

Perhaps what characterizes all behaviorists is their use of experimental methods, their reliance on empirical data based on careful observation, their concern for objectivity and the replication of results, their

focus on the environment and what the organism is doing currently, and their rejection of inner causes or entities as either the sole or the most important determinant of human action. To the behaviorist, the "here and now" contemporary environment is important because much of what a person does is a function of environmental events.

Popular conceptions of behaviorism often fail to acknowledge differences between behaviorists. Some conventional behaviorists have used internal processes, such as drive reduction or habit strength, to explain behavior (Hull, 1943; Miller & Dollard, 1941). Others have suggested curiosity and exploratory drives that are elicited by external stimuli (Berlyne, 1960; Harlow, 1953). And still others have conceptualized internal sensory feedback processes to explain behavior (Mowrer, 1960). In addition, conventional behaviorism has emphasized operational definitions and direct observation of physical responses. Some conventional behaviorists are also dualistic in the Cartesian mind-body sense; to them the events of the mind are not to be understood in the same fashion as physical behavior, i.e., sensory motor behavior (Rachlin, 1970). Conventional behaviorists have also relied heavily on extensive deductive theories and have typically employed experimental group designs in their research (e.g., Hull, 1943).

By contrast, the radical behaviorists rejected this mind-body dualism, reliance on operational definitions, and mentalistic explanations such as drive states and drive reduction (Skinner, 1945).[1] They view private events, that is, what goes on within the person, as subject to the same learning principles as external behavior. The radical behaviorist also rejects elaborate experimental group designs and reliance on inferential statistics based on the average performance of groups of subjects. Instead, he considers that the individual organism serves as the focus of research and that observations are to be made continuously before, during, and after planned interventions, with an emphasis on careful description.

Besides conventional and radical behaviorists there are social learning or cognitive behaviorists (e.g., Bandura, 1969), who emphasize internal processes such as thoughts and imagery in explaining how learning occurs. At present, the term behaviorist may therefore refer to conventional, radical, or cognitive-oriented behaviorism.

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[1] A distinction is sometimes made between the early radical behaviorism of John Watson and the contemporary radical behaviorism of B. F. Skinner (Day, 1969; Terrace, 1971). Both are labeled radical for rejecting mentalistic explanations. However, Watson's highly physicalistic stimulus-response rationale, coupled with a dualistic perspective, differs markedly from Skinner's operant theory (Skinner, 1969).

Watson and Skinner

The early behaviorism of Watson (1924) sought to explain all human action in physical terms. Figuratively, the early stimulus-response (S-R) advocates believed that if a phenomenon could not be reduced to units that comfortably fit in their scientific test tube, then the phenomenon was metaphysical and meaningless. Watson denied the existence of consciousness and awareness, rejected introspection (self-report) as a valid scientific method, and saw all of man's actions as determined by forces outside the person. The spirit of Watson's viewpoint is represented in a recent article (Locke, 1971) in which it is argued that much of what is called behavior therapy today is not behavioristic since these therapies (e.g., the systematic desensitization [Wolpe, 1958]) use covert processes, rely on self-reports from clients, and are not restricted to behavior directly observable by others. For the early Watsonian behaviorists and some conventional behaviorists today, the focus is on physically based operational definitions and direct physical assessment. If the phenomenon in question cannot be measured directly with some type of physical device--ruler, scale, calipers, polygraph--then the phenomenon is beyond scientific interest. Except for physiological responses such as heart rate, which can be measured directly and independent of the individual, covert events are deemed beyond controlled inquiry.

The radical behaviorism of Skinner differs from the conventional S-R framework in several ways. Skinner rejected the positivistic operationalism and the limited physicalistic rationale of the earlier behaviorists and functionalists (Skinner, 1945). He argued that in an adequate science of behavior nothing that determines conduct can be overlooked, no matter how difficult of access it may be. Skinner acknowledged the role of private events in explaining behavior and the person's internal environment. He observed, "It would be a mistake to refuse to consider them [private events] as data just because a second observer cannot feel or see them (Skinner, 1969, p. 242)." He remained skeptical, however, about how central a role internal responses play in determining what the individual does. Covert responses such as thoughts or internal sentences are not autonomous but rather owe their existence to a public history of learning.

Skinner also rejected animistic and mentalistic explanations of behavior, such as ego, positive growth force, drive reduction or sensory drive mechanisms, as fictions created to explain what is not yet understood. Skinner contended that the individual behaves internally and that these covert responses are explainable by the same principles as observable external responses (Skinner, 1953, 1964). Since the individual may be the only person with access to a private event such as a self-verbalization, self-reports of private events are justified. Skinner (1953, 1964, 1971) has consistently acknowledged the difficulties in dealing scientifically with internal phenomena. Though his own work has avoided inquiry into the area, his theoretical rationale clearly recognizes the importance of the individual's internal behavior.

Skinner's basic unit of analysis, the three-term contingency, is very significant for its relevance in understanding the causes of individual action. Human behavior (internal or external) is influenced by preceding events (stimulus control) and by events that follow certain actions (outcome control). These antecedent and consequent events may be internal, within the person, as well as external to the person. To understand why a person does certain things one must carefully observe the conditions and circumstances surrounding his actions.[2]

Social Learning

The most recent development in contemporary behaviorism can be called the social behavior or social learning approach (Bandura, 1969; Mischel, 1971). This type of behaviorism does not conceptualize behavior in Skinner's operant response terms (e.g., the three-term contingency). Further, it does not utilize the traits, motives, and drive explanations of conventional behaviorists (Dollard & Miller, 1950; Eysenck, 1960), nor does it reject the relevance of internal processes and events. Indeed, to social learning behaviorists, the often cited empty "black box" is considered quite full.

In the social behavior view, individual actions are regulated by three basic processes: stimulus control, internal symbolic control, and outcome control (Bandura, 1969). A major focus of the social behavior theory is on the person's covert symbolic responses. Mediation, what goes on within the person, is important data, as is the "meaning" or significance of a particular situation to the person. Bandura (1969) has emphasized the importance of vicarious or observational learning that takes place by means of symbolic processes within the individual. Observational learning is not explained in an external stimulus cue and reinforcement paradigm. Rather, observational learning is presented as a dynamic sequence of complex processes involving attentional, retentional, reproductive, and motivational factors.

In the social learning perspective a distinction is made between the acquisition of behavior (learning) and its performance. Internal symbolic and sensory processes play the major role in learning new behavior; the external contingencies of reinforcement (outcomes) determine whether the behavior is then performed. Reinforcement is seen as chiefly of informational and incentive value. The person can learn without overtly performing and without any direct reinforcement. Social behaviorists view the individual person as a dynamically changing organism rather than as a

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[2]Interestingly, the "radical" position of Skinner is shared considerably by the radical phenomenology of Sartre and Merleau-Ponty (1965), who reject what they regard as the introspective, dualistic, idealistic views of American phenomenologists, such as Rogers and May, and argue that human behavior is to be understood by examining the interaction between the person and his environment (see Kvale & Grenners, 1967).

passive receptacle of enduring responses. The internal and external actions of each person are primarily influenced by the specific "here and now" experiences.

Both social behaviorism and Skinner's radical behaviorism emphasize that current environmental situations are prime determinants of human action. Although Skinner's theoretical work has clearly acknowledged the importance of private events and the individual's internal environment, the research and practice of radical behaviorists have generally avoided this area. Social behaviorists have pursued the more complex area of symbolic behavior, seeking to understand how covert events-as-responses interact with external responses to regulate what the person does.

Behaviorism today is far more than either the psychology of Watson, with its physicalistic concerns, or the drive-reduction-oriented animal experiments of the conventionalists. "Behaviorism" as a term denotes an emphasis on the comprehensive and systematic study of the individual, and the use of empirical methods to examine how current environments may be influencing the individual's action. What goes on within the individual--covert responses--represents important data.

Some basic characteristics of contemporary radical behaviorism and social learning approaches are as follows:

1. A monistic view of the individual and a rejection of a dualistic mind-body theory.

2. A belief that public or observable events are functionally similar to private or covert events; and that both kinds of events are influenced by the same learning processes and principles.

3. A rejection of inner "mentalistic" explanations of behavior.

4. A belief that behavior is determined primarily by the immediate environment, including the person's internal environment.

5. A use of scientific methods that stress careful, systematic observation and control of behavior, including self-observation and self-control.

6. A rejection of using trait-state labels (e.g., introvert) to describe the person, based on the belief that the individual is best described and understood by examining what he does in particular situations.

Intensive Study of the Individual

Traditional research designs and techniques have been grossly inadequate for the scientific study of the individual person. Prevailing research methodologies have been criticized for their irrelevance in understanding the actions of individuals (Chassan, 1967; Maslow, 1966; Strupp

& Bergin, 1969; Thoresen, 1969; Yates, 1970). Controlled psychological research has relied almost exclusively on a particular type of research design that requires the use of large groups of subjects and the concomitant need for elaborate statistical procedures. This type of design has been often exalted as the only true and legitimate strategy for scientific inquiry (Chassan, 1967).

A cursory review of research textbooks used in psychology testifies to the dominance of comparative group designs. These extensive designs with their focus on the mean performance of groups of individuals have yielded limited information about the what's and why's of individual performance. A major reason for this has to do with the underlying assumptions of extensive designs, such as the concept of "intrinsic" variability of individuals within groups and the role of the central limit theorem (Sidman, 1960). In effect, most psychological research has sought generalizations that apply to the performance of populations. Such generalizations have required random sampling from populations--a requirement almost always violated by psychological researchers (Edgington, 1966)--and the use of statistical techniques to handle troublesome individual variability. Such variability is sometimes referred to as error or nuisance variance or unexplained individual fluctuations. Extensive designs using group comparisons represent a powerful strategy for verifying hypotheses about hypothetical populations. However, such designs are concerned with only one facet of the cycle of scientific inquiry, which includes discovery, description, observation, induction, deduction, and verification (Lackenmeyer, 1970; Paul, 1969). Scientific inquiry requires a variety of designs and techniques; there is no one best method.

Fortunately, an alternative design, one with a long and honorable history in science (Dukes, 1966), is available. The intensive empirical study of the single case, N = 1, is an experimental design ideally suited for the kind of "intimate" inquiry required for the concerns of humanists. The intensive design avoids many of the problems of large group studies that derive from (a) the use of statistical techniques to control for individual variation rather than precise experimental control, (b) random sampling from hypothetical populations, (c) the failure to pinpoint specific cause and effect relationships for individual behavior, and (d) the failure to provide continuous data on changes of every subject throughout all phases of the investigation. The intensive design, sometimes referred to as the experimental study of the individual, is based on different assumptions than the group designs. Further, it seeks to answer different questions, such as how specific conditions influence certain individual actions over time. The concern is not with what Kurt Lewin (1935) once called "on the average thinking" but with understanding how each individual is influenced by specific interventions.

Comprehensive discussions of the intensive experimental study of individual behavior are available (Browning & Stover, 1971; Chassan, 1967; Sidman, 1960; Thoresen, 1972; Wolf & Risely, 1971). These discussions provide detailed information on different types of intensive designs such as multiple time series, baseline treatment reversals, and multiple base-

line procedures. The discussion here is to introduce the relevance of intensive designs for examining the kind of overt and covert human behavior of concern to humanists; to suggest that criticism of behavioral or scientific research has been misdirected because of stereotyped conceptions; and to summarize the merits of intensive designs in studying individual behavior.

Maslow (1966), one of the founders of humanistic psychology, deplored the rigid conventionalism of psychological researchers. He believed it was possible and desirable to develop new methods and designs for studying the individual scientifically. Allport (1937) long ago urged that idiographic rather than nomothetic strategies should be used if we are to understand individuals. Allport developed a variety of what he called morphogenic methods, such as personal letters, questionnaires, structured interviews, and biographies along with self-anchoring rating scales to study the structure of each individual. Similarly, Lewin (1935) argued that the individual should be studied in relation to his current environment, which he described as "concrete whole situations." Lewin criticized the Aristotelian logic underlying extensive designs and classical statistics, which required the individual to be viewed as a random or capricious event. Instead Lewin believed that the actions of each individual were lawful, and understandable through scientific investigation if appropriate designs were developed. Skinner (1959), somewhat in the tradition of the early N = 1 experimental psychologists of the late nineteenth century (e.g., Ebbinghaus), challenged the orthodoxy of statistical group research methodologies. Skinner argued that the prevalent use of inferential statistical operations kept investigators away from working directly with data, an argument also raised by others (Bakan, 1967; Stevens, 1968). To Skinner, functional or causal relationships could best be discovered and confirmed by exercising tight experimental control of the situation. Elaborate group statistics were too often an excuse for failing to use experimental control.

Skinner's early work with animal subjects was based on a continuous observing and recording of data over long periods of time. Various interventions were tried and the results directly observed. On the basis of these observations interventions were often altered. In this way the investigator learned from the data; his actions were determined by what the individual subject was observed to do. It is the potential for this rich interplay between the researcher and the individual subject that makes the intensive design a powerful research strategy--similar to the Taoist approach to inquiry advanced by Maslow (1966).

Some critics of behavioral psychology have used the "subjective" revolution in physics with its concepts of indeterminacy, complementarity, and uncertainty as a basis for rejecting the methods of scientific psychology (Matson, 1964). Since the performance of individual atoms and electrons can be neither predicted nor controlled, man, it is argued, is also beyond prediction and control. Man is just as complex as an atom or an electron. Therefore, behavioral psychology with its deterministic rationale of classical science derived from Newton and Hume is viewed as inappropriate for the study of man.

The problem with this kind of analogous thinking is that it assumes that all human action functions in the same way as subatomic particles. All human activity, from the movement of blood cells to verbal responses, cannot be explained by any single rationale. Physics did not reject classical determinism totally in the twentieth century but instead expanded its rationales to fit various phenomena. The question is what types of human behavior are best understood by what explanatory rationales. The determinism versus indeterminism argument is a pseudo issue that fails to capture the complexities involved. We do not know enough at present about how different types of human behavior are influenced. Undoubtedly the rigid mechanistic determinism of classical Western science with its notions of absolute prediction is invalid for much of the human activity of concern to humanists. Clearly there is a need for a variety of causal models and research strategies (Blackburn, 1971). Our task is to find out which human actions are best explained by what principles and which kinds of research designs are most appropriate to facilitate such inquiry.

Given the limited status of our understanding about individual human behavior, the intensive experimental study of individuals seems very promising. Every design of course has its limitations. Bandura (1969, p. 243-44) presents a number of shortcomings of intensive designs, including the problem of not being able to return to the baseline after treatment and the confounding of sequential treatment effects. However, much is to be learned from focusing carefully on the individual through controlled observation and description. An intensive approach to research promises to create inquiry that is more personal and intimate in dealing with the individual. If we are to learn, the individual person cannot be treated as an inanimate object to be manipulated, but must be viewed as a dynamic, active organism. The individual has much to teach us. When it comes to understanding man, perhaps the person himself can be one of the best scientific tools in existence.

The intensive experimental study of the individual offers the following advantages:

1. The unit of focus is the specific actions of the individual subjects rather than average performance of groups.

2. The frequency, magnitude, and/or variability of the individual's actions can be examined continuously during each phase of the investigation and between phases.

3. The individual subject serves as his own control, in that the magnitude and duration of change is compared to his own baseline of actions. In this way, past experience and individual differences are fully controlled.

4. Experimental control of variables is greatly facilitated, thereby reducing the need for statistical control through complex inferential statistics.

5. The effects of treatment administered simultaneously or sequentially on one or more individual behaviors can be examined over time for a particular individual.

6. Causal or functional relationships are established by replication (reproducibility) of specific results for the same individual and across individuals. In this way, evidence of generalization is systematically gathered without recourse to the often untenable assumption of random sampling.

7. The clinician as researcher can determine the extent of specific changes in individual actions continuously before, during, and after treatment; changes in treatment can be made and evaluated promptly.

8. Scientific inquiry into both external and internal behavior is possible.

Freedom and Self-Control

A growing area of behavioral research concerns self-control. What are the internal and external controlling responses that influence internal and external actions? Behavioral researchers are particularly interested in developing techniques to teach individuals how to manage their own actions. Some humanistic writers (Blanshard, 1970; Matson, 1971) have criticized behaviorists for their failure to consider freedom and self-direction. Believing that the person is and should be free to decide what he shall do in a given situation, and that human action is neither predetermined nor predictable, they see the behaviorist as someone who would deprive the person of this freedom to determine his own actions. They equate the prediction and control of human behavior by others with the demise of freedom and dignity. But they view the individual's ability to predict and control his own actions as freedom.

The problem with this view of the individual's freedom is that past and present experiences with other persons do subtly influence what an individual may decide to do in the present. Common sense would suggest that the person can decide to do something completely independent of anything else. And a venerable literary tradition supports the view that self-direction operates entirely within the person. The person who thus charts his own course and makes his own choices is a free and dignified individual (Lamont, 1967).

Freedom and dignity, however, are measured in individual actions. The free person has the power to take certain actions. The power, and therefore the freedom, depends on awareness, that is, the conscious processing of all kinds of information. Recall the premium placed on awareness by humanistic psychologists. Awareness is crucial, since the information (stimuli, to use a technical term) influences the individual's behavior. The person who has information and who can control it is free. Terrace (1971) argues that awareness is actually a learned behavior. The person learns to distinguish certain internal responses which he then

labels "angry," "happy," "upset," etc. Awareness therefore consists of discriminating information or stimuli and describing it in some way. How a person labels information about his own behavior has been studied recently in attribution research (Ross, Rodin, & Zimbardo, 1969). Inaccurate labeling and faulty stimulus discrimination may be one type of maladaptive behavior pattern. The person, unable to explain adequately to himself the high arousal he is experiencing, concludes that he is irrational and mentally disturbed (Zimbardo, Maslach, & Marshall, in press).

In many ways the difference between individual freedom and control by others lies in "who is manipulating what stimuli (London, 1969, p. 214)" or who is using and controlling information that influences human action. Awareness is the basis of freedom and self-control because it provides the individual with the information he needs to change his own sources of stimulation, both internal and external. Freedom versus determinism therefore is not a real issue. The freedom to act depends on the person's being aware of, or knowing, what kinds of information (stimuli) influence his own behavior. This knowing must include internal or covert stimuli as well as external data on both internal and external behavior.

Staats (1971) has suggested that the very young child learns self-control by observing others. The young child talks aloud to himself at first, then gradually replaces these overt verbalizations with covert talk or self-verbalization in the form of self-instructions. After the first few years of life, the person engages in a great deal of covert speech (Luria, 1961; Vygotsky, 1962). However, his awareness of this internal behavior quickly diminishes. Thus, over time it seems to the person as if what he does is spontaneous and totally determined from within. Once behavior such as covert speech is learned from environmental experiences, however, that behavior can determine, in part, what the person will do. In this way it may be said that the person causes his own current and future behavior through what he has learned in the past. He learns covert responses such as self-verbalization from others in his verbal community. The availability of these learned covert responses to the person determines whether that person is "free to act."

A series of experiments by Meichenbaum (1971) and his colleagues illustrates how persons can be taught through social learning techniques "to talk to themselves differently" as a way of gaining greater freedom and self-control. In one study children who had difficulty attending to a task were first provided concrete examples (social models) of others instructing themselves by speaking aloud. The children then practiced self-verbalizations with fewer external cues until they could direct their own actions without external support. In another study, adults labeled as schizophrenics were taught how to use covert self-instructions along with how to become aware of certain information that usually preceded their "crazy behavior." This training in using covert responses helped these individuals to gain greater self-control.

Viktor Frankl's modern classic, Man's Search for Meaning (1959), exemplifies how the verbal community in most Western cultures teaches the

person to conceptualize self-control as a vague inner force. Throughout Frankl's moving description of life in a concentration camp, he describes circumstances in which he used self-verbalization or vivid imagery. For long periods of time Frankl managed his inner environment by carrying on covert conversations with his wife or with friends, coupled with "mental pictures" of persons and situations. In this way aversive external stimuli--the sight of dead bodies, the verbal abuse of guards--and physiological cues such as hunger were controlled.

Frankl did not conceptualize his covert actions as influencing other behaviors, however. Instead, he explained them in terms of inner life and freedom. Frankl survived, he states, not because he was able to use a variety of effective covert responses in an extremely aversive external environment, but because he possessed an inner strength, a sense of meaning, and dignity. It might also be said that he survived because he had learned to use vivid images and to carry on covert dialogues with himself.

Techniques for self-control have had a long, though somewhat obscure, history. Varieties of Yoga and Zen procedures for self-managing thoughts and physiological responses have existed for over two thousand years. There is evidence that certain individuals have achieved astonishing levels of self-control. Green (1971), for example, has reported laboratory studies with a yoga master who radically altered his heart rate, body temperature, and brain wave patterns repeatedly on demand. The yogi was engaging in a complex pattern of covert behavior that altered these responses. The unanswered questions are: What were these controlling behaviors? How did they function to effect such changes?

Research by behavior-oriented investigators has been expanding recently into physiological feedback (biofeedback) training, cognitive focusing, and the instrumental (operant) conditioning of glandular and visceral responses (DuPraw, 1972; Green, Green, & Walters, 1969; Miller, 1969; Nowlis & Kamiya, 1969; Wegner, Bagchi, & Anand, 1961). DuPraw, for example, utilizing the work of Schultz and Luthe (1969) in autogenic training, demonstrated that some individuals could significantly reduce their heart rate by using self-instructions (covert verbalizations) and selected imagery responses. Miller (1969) and his colleagues have provided data in a series of animal studies which show that a great variety of internal physiological responses can be "voluntarily" controlled by the organism if reinforcing stimuli are provided. The well-publicized biofeedback studies (e.g., Collier, 1971) involving EEG alpha waves have suggested that the person can learn to alter his "state of consciousness" if information or awareness of his current performance is provided.

These developments merit acknowledgment for their relevance in understanding self-control. A comprehensive discussion of these developments is beyond the scope of this paper. (For a comprehensive collection of research studies on biofeedback and self-control techniques, see Barber et al., 1971.) Instead, a brief discussion of one framework for research and practice in self-control is presented. (A more complete account of this approach is available in Thoresen & Mahoney, in press.)

Behavioral Self-Control

The behavioral approach to self-control presented here examines both the internal and the external events that precede and follow the behavior in question. Some desired action is taken as the focus of self-control, such as smoking fewer cigarettes, making more positive statements, eating less, or having fewer fearful fantasies. Self-control is not conceptualized as a basic personality trait of the person, nor is it viewed as a force wholly within the person, such as "will power." Self-control viewed as individual action is best understood as a complex interaction of internal and external responses. Consistent with a basic humanistic premise, this behavioral view sees the ability to manage or control oneself as a valued human act. Every person is capable of learning self-control. Every person is also responsible or accountable for his actions. The concerns of humanistic psychologists for the individual, which were summarized earlier, are well served by this behavioral perspective.

The person in this behavioral perspective is conceptualized as a "personal scientist," much in the same way as some existential-phenomenological psychologists have suggested (e.g., Kelly, 1955). The person is helped to be a critical and careful observer of his own actions and the actions of others. The person is also helped to generate hypotheses about what kind of intervention may bring about the desired change. Giving the person the power to change is the prime focus.

Controlling and Controlled Actions

Self-control is not viewed as a discrete category separate from external control or other methods of influencing behavior. Instead, self-control is conceptualized as a broad continuum in which internal control and external control interact to bring about change. Thus, the chronic smoker and angry father may use different self-control techniques to quit smoking or to respond more positively to a child, but either one will also be influenced by external factors such as his health or the actions of other members of the family.

The distinction between self-controlled and self-controlling responses is important. The person's self-controlling responses (SCR) are subject to the same environmental influences as the responses to be controlled (RC). For example, the self-controlling behaviors (SCR) of relaxation practice and rehearsing "small talk" used by a shy teenager to improve her personal conversations with boys (RC) are both behaviors. The person uses one set of responses, SCR, to control other responses, RC. One of the practical problems for persons trying to change their own actions is how to maintain their self-controlling actions (SCR). The person's self-controlling behavior (SCR) is inevitably influenced by the external environment (e.g., social praise, changes in family activities, an improved medical report). A major task of the person is to arrange the external environment to support rather than discourage his self-controlling behavior. A mother who cooks large, high-calorie meals and insists that everyone have seconds makes it more difficult for her obese son to maintain

self-controlling responses designed to reduce eating behavior. It therefore makes sense to consider self-control as a continuum of various activities rather than as a category or entity that can be opposed to external control.

Various behavioral definitions of self-control (Cautela, 1969; Ferster, 1965; Goldiamond, 1965; Kanfer & Phillips, 1970) have contained elements such as physical restraint, deprivation, resistance to deviation, aversive techniques, abstinence from available reinforcers, delay of gratification, stimulus manipulation, action despite known aversive consequences, and alteration of behavior-environment relations. The following definition draws on some of these elements:

> A person displays self-control when, given two or more response options and facing no immediate external constraints, he engages in a behavior whose previous likelihood has been relatively less than that of alternatively available behavior.

This tentative definition highlights three important features of self-control phenomena: (a) two or more behaviors are possible, hence a choice or decision must be made, (b) the consequences of these behaviors are usually conflicting, and (c) the self-controlling behavior is usually prompted and/or maintained by external factors. For example, the person who chooses to quit smoking has the option to smoke or not to smoke. The consequences of smoking are immediately pleasant but ultimately aversive; the consequences of not smoking are just the opposite. The person's effort to control his smoking does not, of course, take place in a vacuum; he is influenced by such external events as a doctor's orders, friends' remarks, and medical research reports.

Self-Controlling Responses

Self-controlling responses (SCR) may be exercised through three strategies: self-observation, environmental programming, and individual programming. These strategies are not completely independent of each other. For example, self-observation can be viewed as a type of individual programming in which the person is using his own behavior to change. For discussion purposes, however, the three strategies are presented separately.

Self-observation. In order to observe and record the behavior to be controlled (RC) the person must be aware of what he is doing. Skills of self-observation--sometimes referred to as self-monitoring or self-recording--represent one way of developing awareness. Earlier, the concept of awareness was presented as knowledge of stimuli or information that might influence one's actions. Here, the person gathers data on his own actions. Consistent with a behavioral perspective, data should be gathered on the behavior of concern, i.e., the response to be controlled (RC), before any type of change is tried. Data might also be gathered on other concurrent events. But the gathering always takes place first.

Most persons are generally unaware of their actions in daily life situations. Although some persons may attend sporadically to a particular behavior, seldom is such attention carried out systematically over a long

time. Herein lies the potential power of self-observation as a self-controlling strategy. The systematic observing, recording, and analyzing of one's own behavior provides the person with an ongoing record of his actions. This information feedback usually influences the behavior being observed. A psychological Heisenberg Principle can be suggested: the act of self-observing, along with recording and analyzing behavior, invariably influences the behavior being observed. The person who records his own behavior not only becomes more aware of his actions but also receives immediate and cumulative feedback on what he is doing. It is therefore not surprising that self-observation influences the behavior being observed.

How does a person systematically observe his own behavior? Many methods are available. The instruments for self-observation remain primitive; many types of devices used have not yet been carefully studied. Wall charts, wrist counters, wrist alarms, behavioral diaries, and small pocket-sized cards are some devices used for monitoring certain actions. For example, a weight chart in the bathroom or a wrist counter used to record positive self-thoughts might reflect trends in day-to-day changes, e.g., weekend responses compared to workday responses. The recorded tabulation might provide feedback on gradual changes that would otherwise go unnoticed. Self-recorded data might also provide significant information on the rate of a behavior, what events tend to elicit the behavior, and what consequences may be maintaining it. Recording devices also provide a more objective basis for self-evaluation. If the data gathered indicate that the person is changing in a desired direction, then he has good reason to have positive feelings about himself.

The research evidence on self-observation suggests that behaviors desired by the person can often be increased simply by being recorded (Mahoney, 1972). The effects of self-observation on undesired behaviors, while less clear, also suggest that observing reduces the undesired behavior. The processes involved in self-observation are confounded by the possibility that covert self-reinforcement and punishment may take place when the person engages in observing and recording his behavior. Several smoking studies have shown, for example, that self-monitoring in itself generally has been as effective as various types of treatments (Marston & McFall, 1971). The smoker in the self-observation treatment may covertly be rewarding himself with "good feelings" or positive comments about reducing his smoking when he monitors his smoking.

A recent study by Bolstad and Johnson (1971) with disruptive elementary school children suggests that self-observation and recording by young children of their own disruptive behavior in the classroom may function in a self-punishing way. In this study, when each child recorded a disruptive response, the child knew that this reduced the number of points he would receive for not being disruptive. In part, the problem lies in how to assess the separate effects of self-observation per se from some kind of self-change procedure. Broden, Hall, & Mitts (1971) found that an adolescent girl, concerned with doing better schoolwork, especially during class time, increased her studying time in class from about 30 percent to almost 80 percent in one week. The girl used a recording slip

on which she marked an "X" when she had been studying for the last few minutes. After about three weeks of self-observation the procedure was discontinued; studying promptly declined to an average of 27 percent for the week. When self-observation was reinstated, studying again increased to about 80 percent. When the self-observation procedure was finally discontinued, the rate of studying remained at the 80 percent level.

The many methodological issues in self-observation highlight some of the major problems in using scientific methods. The traditional objective/subjective dichotomy in conventional science, the usual notions of reliability, the matter of demand characteristics and expectancy effects, and the importance of unobtrusive, nonreactive measures, are all brought into question (Nelson & McReynolds, 1971; Simkins, 1971). At present very little is known about how to resolve these problems. For this reason, studies concerning the processes of self-observation phenomena represent a high priority area for research. Some of the problems were reflected in an observation made by Maslow (1966) concerning the fatal weakness of conventional research, "its inability to deal impersonally with the personal." Clearly, if we are to understand fully the intricacies of complex processes such as self-observation, and develop ways of teaching it to persons, we need to expand research methodologies and design new "personal" instrumentations. We need to tailor a new philosophy of science that is appropriate to the kind of human phenomena we are concerned with.

Environmental programming. The second self-controlling strategy involves changing one's environment so that either the stimulus cues which precede the behavior or the consequences that immediately follow it are changed. This restructuring of the environment often involves the elimination or avoidance of daily life situations where a choice or decision is necessary. Several studies have demonstrated that self-control through "stimulus control," in which a person alters the environment so that the problem behavior is associated with progressively fewer cues, is very effective (Ferster, Nurnberger, & Levitt, 1962; Goldiamond, 1965; Stuart, 1967). The overeater or drug user, for example, may avoid situations associated with the behavior that "stimulate" the problem behavior, or he may gradually narrow the situations in which he engages in the RC. Smoking cigarettes only in the basement by oneself after 10:00 p.m. represents a restricted stimulus situation. The drug user may gradually reduce the types of social situations in which drugs are usually taken. Similarly, an obese person may control eating by removing environmental cues such as the television set, the cookie jar, and close friends when eating. The physical environment such as the kitchen often elicits excessive eating. Eating meals in another room without all the cues to eat can reduce eating.

In a study to reduce smoking, Upper and Meredith (1970) trained heavy smokers to reduce long-standing smoking patterns by changing the physical cues to smoke. Smokers recorded their daily smoking rate. Using small portable timers, smokers set the timer for their average inter-cigarette time interval (e.g., 17 minutes). Smokers were then instructed to smoke only after the timer's buzz. By establishing this new environmental cue to smoke--a cue completely under the person's control--the previous cueing

situations, such as drinking beer, or completing a meal, or having a conversation with a friend, were displaced. Gradually the smokers increased the time interval until smoking was either eliminated or considerably reduced.

A second type of environmental programming, besides altering the stimulus environment, involves altering the external consequences of behavior. The person can make arrangements, for example, to have someone such as a close friend or spouse, provide certain positive or negative consequences when the RC occurs. If a father is trying to reduce his negative episodes with the children, and his wife invariably consoles him shortly after these experiences, the father might ask his wife to avoid paying attention to him following these situations. A college student might control evening studying by asking his roommate to respond positively at certain time intervals contingent on studying and to respond critically if studying has not occurred during the time interval. The use of a contingency-based point or token system is one type of environmental programming for self-control. A person can arrange to receive a certain number of points contingent upon the occurrence or nonoccurrence of a behavior. Advantages of a point system are that a variety of behaviors to be controlled can be included and that all types of self-control strategies are possible.

Environmental programming as a self-controlling strategy generally takes place prior to the RC, i.e., the person makes the arrangement in advance. Avoiding certain stimulus situations or asking a friend to make a certain kind of response when the RC occurs represent prior arrangements. Many of the changes in behavior that have been attributed to the inner self or will power are actually the result of subtle environmental events. Environmental planning allows the person to take advantage of the powerful effects of the immediate environment.

Individual programming. The third strategy is called individual programming because the person himself uses some antecedents or consequences relative to the RC. The individual may use overt or covert processes to change stimulus cues or to reinforce consequences. For example, the person can set a wrist alarm to sound every hour to cue him to engage in a positive self-thought. Or a person can reinforce himself with a positive image, such as skiing in powder snow or lying in the sun at the beach, contingent upon a certain action taking place. Individual techniques of self-control represent the strategy that we commonly associate with something the person does all by himself. The self-control techniques of Yoga and Zen are types of individual programming in that various overt and covert actions are taken by the person to control certain responses. However, self-control is not restricted to actions carried out solely by the person. This kind of exclusive perspective has prevented the development of a broadly based strategy of self-control.

Individual programming is composed of several kinds of specific techniques, such as self-reinforcement, self-punishment, and stimulus control. A partial list of these follows:

Positive self-reinforcement: providing oneself with a freely available reinforcing event only after performing a certain response.

Negative self-reinforcement: avoiding or escaping from a freely available aversive stimulus only after performing a certain response.

Positive self-punishment: removing a freely available reinforcer only after a certain response.

Negative self-punishment: presenting oneself with a freely avoidable aversive stimulus after performing a specific response.

Self-regulated stimulus control: presenting, altering, or eliminating stimulus cues that are considered relevant to changing the RC. These might include self-instruction, internal control of autonomic responses, covert rehearsal, physical relaxation exercises, and vivid imagery.

Several covert techniques have been used in behavior therapy and counseling to help individuals control their own covert or overt behaviors (Bandura, 1969; Cautela, 1971). Vivid imagery responses have been coupled with physical relaxation to reduce covert stress responses, or anxiety (Goldfried, 1971). Pleasant or extremely unpleasant images have been systematically associated by the person with problem behaviors (also imagined) to change specific overt behaviors. A procedure called covert sensitization has been used in which a very nauseating or aversive image is associated with the RC. These noxious images have helped smokers, homosexuals, overeaters, and alcoholics control their own overt and covert behaviors (Cautela, 1966, 1967, 1969, 1971; Wagner & Bragg, 1970).

Covert responses have also been employed as symbolic positive or negative consequences with promising results. Homme (1965) shows how the individual can use covert responses. In Homme's procedure the person seeking to control smoking behavior immediately follows the stimulus cue or urge to smoke with a strong anti-smoking thought, e.g., "Smoking will reduce my life span," or an image of pouring a full ashtray of cigarette butts into his mouth. Following this covert response the person then engages in a positive thought or image that is incompatible with smoking, e.g., swimming skillfully in a beautiful pool. Finally, drawing on Premack's high probability principle (1965), the person then reinforces himself by engaging in a high probability behavior, such as having a cup of coffee, looking at one's watch, or talking with a secretary.

A recent illustration of self-administered programming is provided by a case history of a young man diagnosed schizophrenic whose problem behavior involved frequent obsessive thoughts about being physically unattractive, stupid, and brain damaged (Mahoney, 1971). After assessing the initial frequency of these maladaptive thoughts through self-observation, the individual was instructed to punish himself by snapping a heavy-gauge rubber band against his wrist whenever he engaged in obsessional thoughts. This procedure is an example of negative self-punishment. When these

thoughts had been drastically reduced, positive self-thoughts were established and gradually increased by using a cueing procedure paired with self-reinforcement.

In the case described above, self-observation had shown that positive self-thoughts seldom occurred. Therefore, the first task was to help this individual identify something positive about himself, e.g., "I'm proud of being in good physical shape." To prime these positive self-thoughts, a high probability behavior was used as positive self-reinforcement. The cards were attached to his cigarette pack. Whenever he reached for a cigarette, he first read (self-verbalization) a positive self-statement and then reinforced himself with a cigarette. A "wild card" alternated with the other three and required a spontaneous, original, positive self-thought.

The individual soon began to generate positive self-thoughts without prior cueing and without smoking as a self-reinforcing event. This treatment enabled the person to resume a normal and adaptive life without lengthy hospitalization or extended therapy. A six-month follow-up indicated that he had been accepted at a college, had obtained a job, and was still using self-control techniques to further his progress. This individual also reported that he had greatly increased his liking of himself and that he looked forward to each day much more positively.

The possible applications of self-programming are as endless as they are exciting. The humanistic implication of this strategy and others is that the individual can learn the skills to direct and control his own life in ways that can increase his personal meaning and satisfaction.

Humanistic Behaviors

Earlier, a summary of humanistic concerns was presented. These concerns were stated in rather abstract terms. It seems possible, however, to reconceptualize these important ideas and translate them into statements of human action. Such a translation will encourage empirical research that examines how the frequency and magnitude of these human actions can be changed. In addition, it is reasonable to consider these humanistic concepts in terms of internal (covert) and external (overt) behavior (Lichtenstein, 1971). Because the human organism is a complex system that responds within and without simultaneously, the use of an internal-external classification is arbitrary. Such a classification may be helpful at this point, however, in facilitating understanding and in fostering controlled research.

Some humanists may argue that translating these concerns into human response terms is oversimplistic and reductionistic and that it is merely another thinly disguised effort to resurrect the same old behaviorist mentality of only dealing with simple, readily observed behavior (Matson, 1971). Admittedly the approach is simple and may fail to capture all aspects of the phenomena involved. However, proceeding from the simple to

the more complex has been one of the most successful strategies of modern science (Maslow, 1966). In an area where relatively little empirical data is available, moving from the simple to the complex on the basis of empirically derived data is crucial. The major question concerns the development of methods to help persons act in more humanistic ways. If a translation is indeed too simple, the methods will not work. The answer will be found empirically, not in logical argument.

Internal Responses

An examination of the humanistic literature suggests a variety of statements that can be translated into response terms. First let us consider internal actions. The following are a sample of internal response categories in which the importance of the increase/decrease factor is evident. The humanistic phrases are in parentheses.

1. Increase the frequency, variety, and accuracy of self-observation of internal responses such as thoughts, images, and physiological responses. ("Self-knowledge; knows what is going on within; is really aware of self.")
2. Increase the frequence of perceptually accurate responses. ("Can see things for what they really are; knows what others are experiencing.")
3. Increase the frequency and variety of low-probability responses. ("Has new and unusual thoughts, physical sensations, images.")
4. Decrease the frequency of stress and tension responses within the body. ("Experiences tranquility; calmness in everyday life.")
5. Increase the frequency of highly consistent psychophysiological responses. ("Experiences sense of unity within; the body is in agreement with the head.")
6. Increase the frequency and variety of imagery responses. ("Engages in rich fantasy; has a well-developed imagination.")
7. Increase the frequency of using psychophysiological responses in specific situations as criteria. ("Trusts his own experiences; 'reads' himself and uses personal reactions to decide.")
8. Decrease the frequency and variety of self-critical, negative responses. ("Accepts himself as worthy; experiences himself as positive; thinks positively about self and others.")

Let us explore a few of these translations. The first item--self-observation--can be described as the systematic recording of a particular internal response, such as positive self-thoughts. Here the person makes discriminations about whether certain covert verbalizations constitute positive self-thoughts and records these thoughts by tallying each occurrence on a card or by using a wrist counter. At the end of a particular time period, such as a day, the person notes the total number of positive self-thoughts. By this means, knowledge of one's internal events can be obtained. Item 4, concerning stress and tension responses, might be dealt with by

teaching the person how to use deep muscle-relaxation techniques, or how to stop stressful thoughts when they occur. Once instructed, the person may come to experience more tranquility and calmness in his everyday life.

Self-critical, negative responses (item 8) are a major factor in self-esteem and self-acceptance. Thus, helping a person reduce the frequency and variety of self-critical thoughts is one way of encouraging self-esteem. Of course, the person should also be engaging in external actions that encourage positive thoughts about himself. Since some persons manifest high frequencies of negative self-thoughts that lack any external basis, reducing these negative internal responses may be prerequisite to promoting more positive responses about oneself.

External Responses

Here are a few tentative translations of other humanistic phrases into external response categories.

1. Increase the frequency, variety and accuracy of external observation responses, both of the self and of others. ("Knows what is happening with others around him; knows what is happening with himself.")
2. Increase the frequency and variety of positive verbal responses. ("Can self-disclose; can be assertive when necessary; can empathize with others.")
3. Increase the frequency and variety of positive nonverbal responses. ("Can relate to others in many ways; seems really to care and be concerned.")
4. Increase the frequency of using environmental stimulus cues by altering physical environments. ("Makes things happen for himself and for others.")
5. Decrease the frequency and variety of socially aversive, negative verbal and nonverbal responses. ("Is a positive, accepting person; deals with disagreement and disapproval in constructive ways.")
6. Increase the frequency and variety of positive verbal and nonverbal responses to animate and inanimate natural situations. ("Has good relationships with nature; feels close to nature.")

Positive verbal responses (item 2) is obviously a very broad response category. The notion of what constitutes a positive verbal response is relative to the consequences of such behavior in particular situations. However, specific verbal responses such as self-disclosing behavior can be defined, and planned learning situations can be used to increase such behaviors. Similarly, aversive talk and gestures (item 5) can be identified and then altered through structured learning situations. One way of "making things happen" (item 4) is to change certain features of the physical environment. For example, the person can rearrange room furnishings to prompt certain behaviors and discourage others.

Well-controlled empirical studies of how individuals change will reveal whether or not these suggested translations have missed the humanistic mark.

In Summary

Complex contemporary environments have reduced the individual person's power to manage his own life. Modern humanists and contemporary behaviorists are both concerned with helping the person experience life more positively. The translation of humanistic concerns into human response terms is one way of encouraging meaningful scientific inquiry. Literary, non-empirical, and anti-scientific orientations cannot provide the data needed to develop techniques for giving power to the individual. Polemics and stereotyping by humanists have accomplished little, except to retard scientific progress. Furthermore, the myopic perspective of conventional behaviorists and other scientists preoccupied with "hard" data have also impeded research.

We need a synthesizing perspective that draws from a variety of sources and avoids invidious dichotomies--humanist versus behaviorist. The beginnings of such a perspective have been suggested. Humanistic psychologists and educators share much with contemporary behaviorists. All are concerned with increasing our understanding of the overt and covert processes that influence the actions of individuals. The intensive, empirical study of the individual offers a methodology well suited to the concerns of both groups. A way of conceptualizing self-control that stresses the continuity of behavior has been suggested. Self-controlling actions can be made possible through self-observation and individual and environmental programming. Some promising self-control techniques are already available.

Misunderstanding and misinformation among behavioral scientists, educators, and humanistic scholars have prevented much needed scientific inquiry. Well-controlled empirical research can provide valuable data. With such data we can learn how to help the individual engage in self-actualizing behavior.

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